Stroke and Complementary Medicine

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A stroke is an event which can have devastating consequences. Strokes occur when an embolus obstructs one of the arteries in the brain, causing necrosis of the tissue which is fed by those vessels. Alternately, a blood vessel ruptures, again causing necrosis in dependent tissues, and in tissues which are affected by the blood. The hemorrhagic type of stroke is primarily genetic, the embolic stroke is partially genetic, but more clearly lifestyle related, and hence partially preventable. The prevention of and treatment of embolic strokes is an area where the integration of conventional and alternative approaches to medicine would be of benefit to patients, and result in significant cost savings.

Predisposing factors for stroke include atherosclerotic lesions in the blood vessels, hypertension, and the tendency of the blood to clot, forming thrombi. Of further consequence are arrhythmias of the heart. Conventional treatment of hypertension is primarily drug oriented, and there have been great gains in this area. Unfortunately there may be significant side effects from these medications, and the compliance rate is notoriously low due to real and perceived reactions. Atherosclerosis has been addressed primarily with diet (low fat, low cholesterol) and with cholesterol lowering drugs. Again, there have been great gains, and more willing acceptance by the public of these interventions.

Research however, reveals some areas where nutrition, including supplementation, may benefit the patient with additional improvement in outcome, i.e. stroke prevention. There is ample evidence that the intake of fiber, green vegetables and fruits do decrease the incidence of strokes. The work of Shintani and Ornich are evidence of the application of such dietary principles. In addition, however, there is emerging evidence that the avoidance of hydrogenated fats may be more important than total fat or cholesterol in the avoidance of atherosclerosis. A nutritional approach to atherosclerosis suggests that the maintenance of endothelial health is most important. Plaque formation is seen to be a response to endothelial damage. A nutritional approach to endothelial protection involves the use of antioxidants to decrease free radical damage. Specific research suggests that lipoic acid, selenium, and vitamins C and E may be helpful in avoiding or repairing such damage. In addition, the specific role of homocysteine in endothelial damage is beginning to be recognized. There is evidence that there may be a straight-line increase in atherosclerotic lesions from homocysteine even at "normal" levels of 7 - 10. Homocysteine is easily reduced with folic acid, which may be supplemented with B6, B12 and Betaine. We are still waiting for evidence that lowering homocysteine will decrease stroke, but this is a cheap and safe therapy, and should be considered in stroke prevention. Antithrombotic therapies which have been researched include bromelain, a pineapple enzyme, and ginseng. Fish oils and omega 6 oils have been associated with improved vascular contractility, with lowered blood pressure, and with decreased stroke risk. Potassium and magnesium supplements have not been proven to decrease blood pressure, but have been shown to decrease stroke risk. Crataegus Oxyacantha (hawthorne) can be very effective for certain types of arrhythmias, and is extremely well tolerated.

The immediate treatment of stroke has been improved dramatically over the past decade with such agents as TPA. Not as much progress has been made in rehabilitation. Too often overlooked, are the prospects of using acupuncture therapy as part of the rehabilitation process for stroke patients. In "Neuroepidemiology", 1993, a study of stroke patients showed significant increase in regain of function with acupuncture started before 36 hours at 3x per week for four weeks. Benefits were significant at 28 days, and continued to be so at 90 days. Benefits were best in those patients with the most neurological impairment. Note that the treatment should be started as soon as possible. Too many patients are referred to acupuncture at 1 to 2 years after their strokes, and have disappointing results.

Lifestyle changes such as weight loss and exercise are very effective in lowering blood pressure in many patients, and specifically Tai Chi and yoga are excellent for these purposes. Retrospective studies underscore the relationship between unexpressed anger and cardiovascular disease of all types, and Ornish in his work stresses the importance of group discussions. In conclusion, there are many effective applications of complementary medical modalities in the prevention and treatment of stroke.